DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER PROTECTION BUREAU
Metcalf Building, Helena, Montana 59620
(406) 444-3080

ENVIRONMENTAL ASSESSMENT (EA)

Division/Bureau: Permitting & Compliance Division, MPDES Permits;

Project or Application: River Rock Subdivision Wastewater Treatment System; MTX000147

Description of Project: The permit authorizes the discharge of treated residential-strength wastewater from 1,192 single family homes, a school, and several retail businesses west of Belgrade. The wastewater will receive treatment in two aerated lagoons prior to discharge to the ground via up to eight Infiltration/Percolation (IP) beds (Outfall 001). The design effluent rate of the treatment system is 374,000 gallons per day. The location of Outfall 001 is 45° 46' 44" North Latitude and 111° 13' 24" West Longitude. Discharge is to groundwater, which is classified "Class I" by the Montana Groundwater Quality Standards.

Benefits and Purpose of Proposal:

Adequate treatment of residential-strength wastewater before discharging to groundwater.

Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider:

None

Listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by this or another government agency:

See Statement of Basis

Affected Environment and Effects from the Proposed Project:

Key to Rank	
NA	*Not applicable*
N	*No effects*
B	*Potentially beneficial effects*
A	*Potentially adverse effects*
M	*Corrective action required*
P	*Additional permits will be required*

Rank	Consideration	Remarks
	PHYSICAL AND BIOLOGICAL ENVIRONMENT	
N	1. SOIL SUITABILITY, TOPOGRAPHIC AND/OR GEOLOGIC CONSTRAINTS (soil moisture, unstable soils or geologic conditions, steep slopes, erosion potential, subsidence potential, seismic activity)	There is no indication that the site chosen for the wastewater discharge area is unstable.
N	2. HAZARDOUS FACILITIES (power lines, hazardous waste sites, distances from explosive and flammable hazards including chemical/petroleum storage tanks, underground fuel storage tanks and related facilities such as natural gas storage facilities and propane tanks)	
N	3. AIR QUALITY (effects to or from project, dust, odors, emissions)	These types of treatment systems may periodically produce some minimal odors.

N	4.	GROUNDWATER RESOURCES & AQUIFERS (quality/nondegradation, quantity/reliability, distribution, uses/rights, number of aquifers, mixing zones)	There will be no violation of water quality standards outside of the mixing zone for outfall 001 (see Statement of Basis for details and calculations).
N	5.	SURFACE WATER RESOURCES (quality/nondegradation, quantity/reliability, distribution, uses/rights, storm water controls, source of community supply, community treatment, mixing zones)	The nearest downgradient surface water from outfall 001 is Ben Creek (25,400 feet downgradient).
N	6.	VEGETATION AND WILDLIFE SPECIES AND HABITATS, INCLUDING FISHERIES AND AQUATIC RESOURCES (threatened, endangered, sensitive species, prime habitat, population stability, potential for human wildlife conflicts, effectiveness of post-disturbance plans)	
N	7.	UNIQUE, ENDANGERED, FRAGILE, OR LIMITED ENVIRONMENTAL RESOURCES (biologic, topographic, wetlands (within one mile), floodplains (within one mile), scenic rivers, natural resource areas, etc.)	
N	8.	LAND USE (waste disposal, agricultural lands [grazing, cropland, forest lands, prime farmland], recreational lands [waterways, parks, playgrounds, open space, federal lands), access, commercial and industrial facilities [production & activity, growth or decline], growth, land-use change, development activity)	
N	9.	HISTORICAL, CULTURAL, & ARCHEOLOGICAL (sites, facilities, uniqueness, diversity)	
N	10.	AESTHETICS (visual quality, nuisances, odors, noise)	The treatment lagoons and IP beds are at the surface, but hidden from view by earthen berms.
N	11.	DEMANDS ON OR CHANGES IN ENVIRONMENTAL RESOURCES INCLUDING LAND, WATER, AIR, OR ENERGY USE (need for new or upgraded energy sources, potential for recycling, etc.) {See (4), (5), and (8).}	

Rank	Consideration		Remarks
IMPACTS ON THE HUMAN POPULATION			
NA	12.	CHANGES IN DEMOGRAPHIC CHARACTERISTICS (population quantity, distribution and density, rate of change)	
N	13.	GENERAL HOUSING CONDITIONS (quality, quantity and affordability)	
NA	14.	POTENTIAL FOR DISPLACEMENT OR RELOCATION OF BUSINESS OR RESIDENTS	

N	15.	PUBLIC HEALTH AND SAFETY (medical services and facilities, police, fire protection and hazards [see (2)], emergency medical services [see (8), LAND USE for waste disposal])	
N	16.	LOCAL EMPLOYMENT AND INCOME PATTERNS (quantity and distribution of employment, economic impact)	
NA	17.	LOCAL AND STATE TAX BASE AND REVENUES	
NA	18.	EFFECTS ON SOCIAL STRUCTURES AND MORES (social conventions/standards of social conduct), DEMANDS ON SOCIAL SERVICES (law enforcement, educational facilities [libraries, schools, colleges, universities], welfare, etc.)	
NA	19.	TRANSPORTATION NETWORK (condition and use of roads, traffic flow conflicts, rail, airport compatibility, etc.)	
N	20.	CONSISTENCY WITH LOCAL ORDINANCES, RESOLUTIONS, OR PLANS (conformance with local comprehensive plans, zoning or capital improvement plans)	
N	21.	REGULATORY RESTRICTIONS ON PRIVATE PROPERTY RIGHTS (*Are we regulating pursuant to a police power? Does the Agency action restrict the use of the property beyond the minimum necessary to achieve compliance with the Act? What are the costs of such additional restrictions resulting from proposed permit conditions? Are there other, less restrictive ways of achieving the same goal?* See your assigned legal counsel for assistance preparing this section. [See the Private Property Assessment Act checklist accompanying this permit for details.]	

Other groups or governmental agencies contacted or which may have overlapping jurisdiction:

Gallatin City-County Sanitarian

Public Involvement:

Thirty-day public comment period

Individuals or groups contributing to this EA:

State of Montana, DEQ Permitting & Compliance Division

Summary of Issues:

See Statement of Basis

Summary of Potential Effects:

See Statement of Basis

Cumulative Effects:

None

Recommendation:

Issue Ground Water Discharge permit

Recommendation for Further Environmental Analysis:

☐ Prepare an EIS ☐ Prepare a more detailed EA ☒ No further analysis

EA prepared by: Eric F. Regensburger Date: February 2006

Bureau Check-off

AWMB _____ CSB _____ EMB _____
IEMB _____ WPB _____ Other _____

Approved by:

Bonnie Lovelace, Chief
Water Protection Bureau
Permitting & Compliance Division

(Print name and title)

_____ _____
(Signature) (Date)